



Communicable Disease and Epidemiology News

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Avian Influenza Update

Outbreaks of highly pathogenic avian influenza (H5N1) occurred among poultry in 8 countries in Asia (Cambodia, China, Indonesia, Japan, Lao, South Korea, Thailand, and Vietnam) during late 2003 and early 2004. At that time, more than 100 million birds either died from the disease or were culled. From December 30, 2003 to March 17, 2004, 12 confirmed human cases of avian influenza A (H5N1) were reported in Thailand, and 23 were reported in Vietnam, resulting in a total of 23 deaths. By late February, however, the number of new human H5 cases being reported in Thailand and Vietnam slowed and then stopped. Within a month, countries in Asia were reporting that the avian influenza outbreak among poultry had been contained. No conclusive evidence of sustained human-to-human transmission was found.

Recent Developments

Beginning in late June 2004, new lethal outbreaks of H5N1 among poultry were reported by several countries in Asia: Cambodia, China, Indonesia, Malaysia (first-time reports), Thailand, and Vietnam. There has not been a resurgence of avian influenza in South Korea and Japan, and the outbreaks are reported to be controlled in those countries. It is unknown to what extent H5N1 outbreaks in the other countries may be ongoing.

The new outbreaks of H5N1 in poultry in Asia were followed by renewed sporadic reporting of human cases of H5N1 infection in Vietnam and Thailand beginning in August. Of particular note is one isolated instance of probable limited human-to-human transmission occurring in Thailand in September.

As of January 21, 2005, there have been 52 human cases of avian influenza A (H5N1) in Vietnam and Thailand resulting in 39 deaths. For more information about H5N1 infections in humans, visit the WHO website at www.who.int/en/.

Assessment of the Current Situation

The avian influenza A (H5N1) epizootic outbreak in Asia is not expected to diminish significantly in the short term. It is likely that H5N1 infection among birds has become endemic to the region, and that human infections will continue to occur. So far, no sustained human-to-human transmission of the H5N1 virus has been identified and no evidence for genetic reassortment between human and avian influenza virus genes has been found; however, the epizootic outbreak in Asia poses an important public health threat.

If these H5N1 viruses gain the ability for efficient and sustained transmission between humans, there is little preexisting natural immunity to H5N1 in the human population, and an influenza pandemic could result, with

high rates of illness and death. In addition, genetic sequencing of influenza A (H5N1) virus samples from human cases in Vietnam and Thailand show resistance to the antiviral medications amantadine and rimantadine, 2 of the medications commonly used for treatment of influenza. This would leave 2 remaining antiviral medications (oseltamavir and zanamavir) that should still be effective against currently circulating strains of H5N1. Efforts to produce a vaccine that would be effective against this strain of influenza A H5N1 are under way. Vaccine reference virus strains have already been produced and provided to manufacturers to produce pilot lots for human clinical trials, as well as to produce a larger quantity of H5N1 vaccine, but mass production and availability of such a vaccine is some time off.

Recent research findings give further cause for concern. New research suggests that H5 viruses are becoming more capable of causing disease (pathogenic) for mammals than earlier H5 viruses, and are becoming more widespread in birds in the region. One study found that ducks infected with H5N1 are now shedding more virus, for longer periods of time, without showing any symptoms of illness. This has implications for the role that ducks play in transmitting disease to other birds, and possibly, to humans as well. Additionally, other findings have documented H5 infection among pigs in China and H5 infection in felines (experimental infection in housecats in the Netherlands, and isolation of H5N1 viruses from infected tigers and leopards in Thailand), suggesting that cats could host or transmit the infection. These findings are particularly worrisome in light of the fact that reassortment of avian influenza genomes is most likely to occur when these viruses demonstrate a capacity to infect multiple species, as is now the case in Asia.

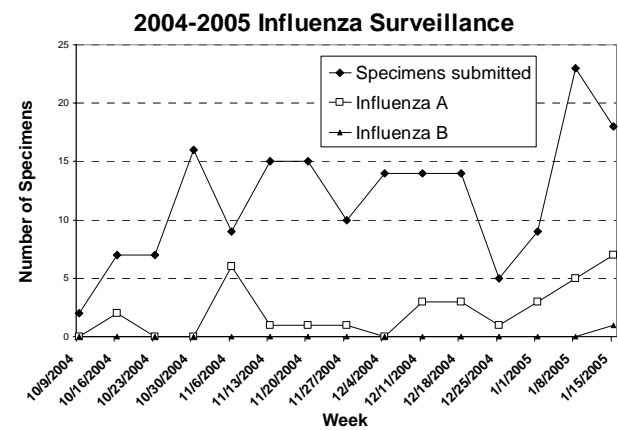
What Can King County Health Care Professionals Do?

- Become familiar with and use the CDC recommendations for enhanced domestic surveillance of avian influenza A (H5N1), including criteria for domestic surveillance, diagnostic evaluation, infection control precautions, and laboratory testing procedures for H5N1, available at: www.cdc.gov/flu/avian/professional/han081304.htm
- Know how to access the updated CDC advice for travelers about avian influenza A (H5N1), which is available at www.cdc.gov/travel/
- Review the draft national pandemic influenza response and preparedness plan at the following website: (www.dhhs.gov/nvpo/pandemicplan/).

Public Health is currently engaged in pandemic influenza planning with health care facilities and public safety personnel. More information will be forthcoming in future issues of the *EpiLog*.

Influenza Surveillance Update

Thirty-eight out of 182 specimens submitted by influenza sentinel surveillance providers this season have been positive for Influenza A, and the 20 influenza A isolates, which have been typed so far, have all been type H3N2. All six of the isolates that have been antigenically characterized by the Centers for Disease Control and Prevention (CDC) are type A/Fujian/411/2002-like (H3N2). This strain is included in both the inactivated and live-attenuated flu vaccine produced for the 2004-2005 flu season.



All restrictions on providing influenza vaccine to patients in King County have now been lifted. Since influenza will probably not peak until February, it is still not too late to vaccinate for flu. For more information about influenza, visit: www.metrokc.gov/health/immunization/fluseason.htm

Beware of Bats in the Wood Pile!

Over the last few weeks, Public Health has received three separate reports of exposures to bats living in wood piles. In two of the cases, the bats were recovered and subsequently tested negative for rabies. In the third case, the bat was not available for testing, so the individual began rabies post-exposure prophylaxis immediately. During winter, bats go into hibernation, and outbuildings, sheds, and wood piles may be common hibernation sites.

A bat exposure is defined as any direct physical contact between a human and a bat, unless the exposed person can be certain a bite, scratch, or mucous membrane exposure did not occur. For example, picking up a bat (even a dead one) with bare hands, or waking up and finding a bat in the bedroom

would be considered potential exposures that should be assessed by Public Health.

Bat bites may leave no mark, and therefore, may not be noticed by the victim, or the examining physician because bat teeth are tiny and razor sharp. Examining a person for evidence of a bat bite is unreliable and should NOT be used to determine if contact has occurred. In addition, persons handling a bat can be exposed to rabies through small or unapparent cuts or rashes of the skin. Any potential physical or direct contact with a bat should be considered a rabies exposure. If the bat has been captured, it is important to save it for possible rabies testing. It should be stored in a sealed container (like a coffee can or plastic container with a lid) and should be refrigerated, but not frozen. To report a bat exposure, or other suspected rabies exposure, call 206-296-4774, day or night.

For more information about assessment and management of potential rabies exposures in King County, see: www.metrokc.gov/HEALTH/providers/epidemiology/rabies/animal-bites.htm

Disease Reporting

AIDS/HIV (206) 296-4645

STDs..... (206) 731-3954

TB (206) 731-4579

All Other Notifiable Communicable Diseases (24 hours a day) (206) 296-4774

Automated reporting line for conditions not immediately notifiable (206) 296-4782

Hotlines

Communicable Disease (206) 296-4949

HIV/STD (206) 205-STD5

Public Health-Seattle & King County Online Resources

Home Page: www.metrokc.gov/health/

The EPI-LOG: www.metrokc.gov/health/providers

Communicable Disease listserv (PHSKC INFO-X) at: mailman.u.washington.edu/mailman/listinfo/phskc-info-x

Reported Cases of Selected Diseases, Seattle & King County 2004				
	Cases Reported in December		Cases Reported Through December	
	2004	2003	2004	2003
Campylobacteriosis	21	14	264	262
Cryptosporidiosis	4	1	34	38
Chlamydial infections	537	429	5,337	5,169
Enterohemorrhagic E. coli (non-O157)	0	0	1	0
E. coli O157: H7	1	3	43	43
Giardiasis	15	15	126	124
Gonorrhea	151	127	1,261	1,351
Haemophilus influenzae (cases <6 years of age)	0	0	2	2
Hepatitis A	1	0	14	30
Hepatitis B (acute)	4	2	23	34
Hepatitis B (chronic)	57	46	629	526
Hepatitis C (acute)	1	0	9	8
Hepatitis C (chronic, confirmed/probable)	104	77	1,253	861
Hepatitis C (chronic, possible)	37	24	361	238
Herpes, genital (primary)	54	89	701	688
HIV and AIDS (includes only AIDS cases not previously reported as HIV)	67	47	446	517
Measles	0	0	6	0
Meningococcal Disease	3	2	19	6
Mumps	0	0	1	0
Pertussis	4	12	202	280
Rubella	0	0	0	0
Rubella, congenital	0	0	0	0
Salmonellosis	12	21	234	243
Shigellosis	5	4	63	88
Syphilis	25	7	164	88
Syphilis, congenital	0	0	0	0
Syphilis, late	2	4	63	49
Tuberculosis	17	15	133	155

The Epi-Log is available in alternate formats upon request.